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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/073,283

02/13/2002

Tatsuya Okamura

2002_0240A

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06/03/2004

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EXAMINER

FERGUSON, LAWRENCE D

ART UNIT

PAPER NUMBER

1774

DATE MAILED: 06/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/073,283

Applicant(s)

OKAMURA ET AL.

Examiner

Lawrence D Ferguson

Art Unit

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14,15,18-20 and 22 is/are rejected.
- 7) ☒ Claim(s) 16,17 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This action is in response to the amendment mailed March 17, 2004.
Applicant cancelled claims 1-13 and added new claims 14-22. Claims 14-22 are pending.

Claim Rejections – 35 USC § 103(a)

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inagaki et al. (U.S. 5,280,146).

Inagaki discloses a method of manufacturing a keytop (column 1, lines 40-44) by clamping a resin film between an upper mold having a cavity and a lower mold having a cavity, where molten resin flows into the upper and lower cavities, followed by the upper and lower molds being parted and resulting with a keytop (column 6, lines 1-16). The reference discloses the molten resin is injection molded (column 9, lines 8-17). Inagaki discloses the keytop sheet includes a flexible, transparent film made of resin (column 15, lines 3-8) where the invention comprises upper and lower resin sheets (column 10, lines 8-18) where the upper and lower resin sheets come into abutting contact with each

Art Unit: 1774

other (column 10, lines 35-37). Although Inagaki discloses a spacer between the two resin sheets after they are placed together, it would have been obvious to one of ordinary skill in the art to omit the spacer layer between the two resin layers since omission of an element and its function in a combination where the remaining elements perform the same functions as before involves only routine skill in the art. *In re Karlson*, 136 USPQ 184.

Claim Rejections – 35 USC § 103(a)

4. Claims 14-15, 18-20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inagaki et al. (U.S. 5,399,821) in view of Shimizu et al. (U.S. 6,621,027).

Inagaki discloses a method of manufacturing a keytop (column 1, lines 65-68) by clamping a resin film between upper and lower cavity molds and filling the cavities with molten resin, followed by the separation of the molds after the molten material hardened (column 2, lines 41-61). The reference additionally discloses the material being a flexible resin film (column 2, lines 16-17 and lines 67-68) where the keytop body is covered by the resin film (column 3, lines 5-10) where the resin is injection molded (column 6, lines 1-8). Inagaki discloses the molten resin (keytop body) and resin film are bonded together (column 6, lines 60-65) where the keytop body and resin film consist of transparent material (column 7, lines 1-5). Inagaki does not disclose a second resin film.

Shimizu teaches a key top member made with a printed upper resin sheet and lower resin sheet bound by an adhesive (column 2, lines 13-47) where the resin sheets are transparent and printed with gravure or ink jet printing (column 12, lines 37-55). Inagaki and Shimizu are analogous art because they are both directed to key tops. It would have been obvious to one of ordinary skill in the art to include a printed first and second resin sheet in the process of Inagaki to help improve the contact of a push button switch structure, which may comprise the key top.

5. Claims 16-17 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's arguments of rejection made under 35 USC 102(b) as being anticipated by Inagaki et al. (U.S. 5,280,146) have been considered but are unpersuasive. Applicant argues the upper and lower resin sheets of Inagaki are spaced apart by a spacer. Although Inagaki discloses a spacer between the two resin sheets after they are placed together, it would have been obvious to one of ordinary skill in the art to omit the spacer layer between the two resin layers since omission of an element and its function in a combination where the remaining elements perform the same functions as before involves only routine skill in the art. *In re Karlson*, 136 USPQ 184.

Applicant's arguments of rejection made under 35 USC 102(b) as being anticipated by Inagaki et al. (U.S. 5,399,821) are moot based on grounds of new rejection.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Ferguson whose telephone number is 571-

Art Unit: 1774


272-1522. The examiner can normally be reached on Monday through Friday 9:00 AM – 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly, can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Lawrence D. Ferguson
Examiner
Art Unit 1774


ELIZABETH MULVANEY
PRIMARY EXAMINER